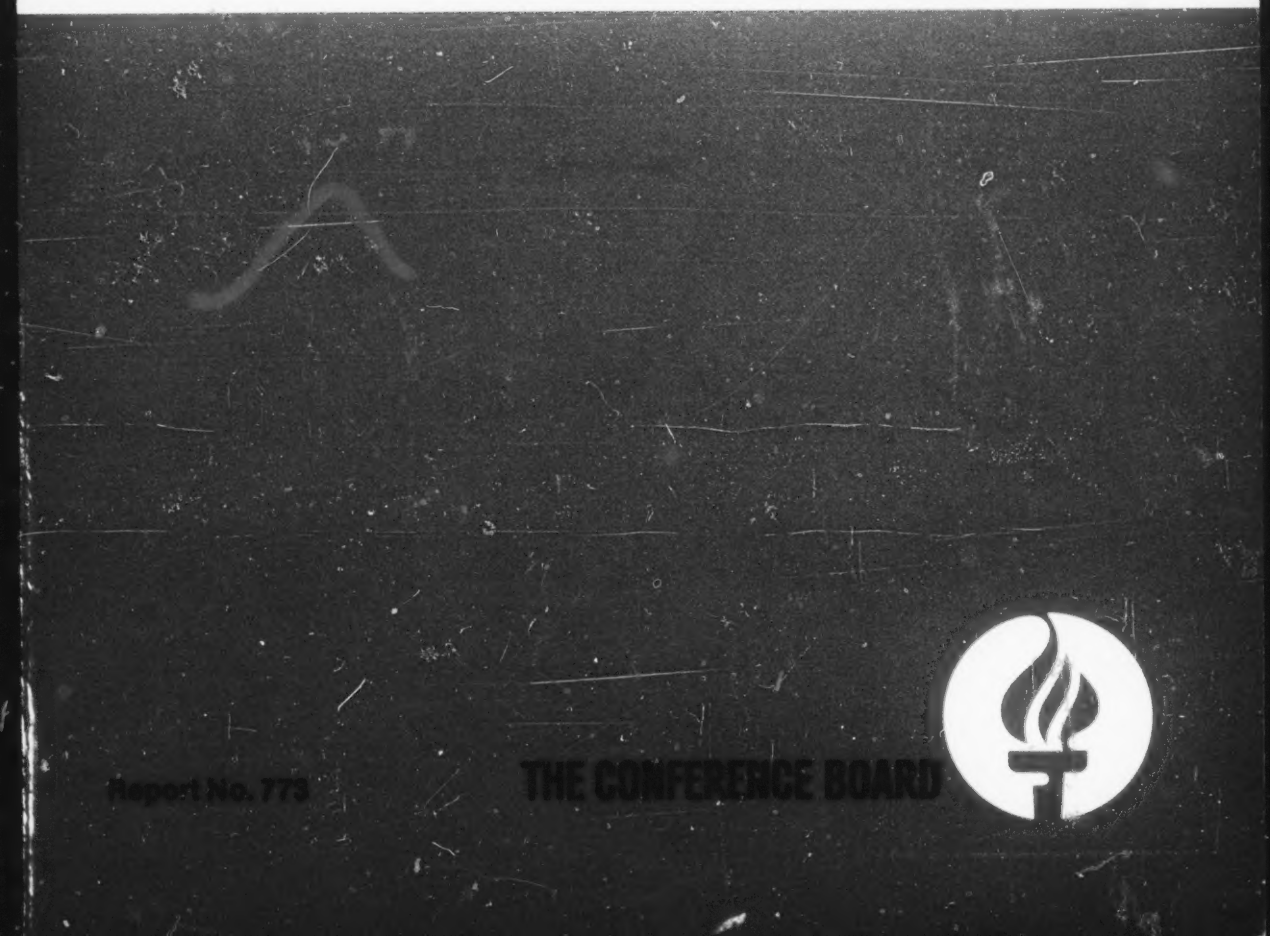
New-Product Winners and Losers



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New-Product Winners and Losers

by David S. Hopkins

A Research Report from The Conference Board

About this Report

Optimism about new-product programs shines through the comments of a large majority of senior marketing executives recently surveyed by The Conference Board. Most managements reportedly are satisfied in varying degree with the winners-to-losers ratio of their companies' new products during recent years. And most also are confident of achieving an even better success rate in the future.

Such broadly held confidence is, of course, tempered with the recognition that it is a rare company all of whose new products completely fulfill management's initial hopes. Nevertheless, "nothing ventured, nothing gained" sums up the attitude of most marketers toward their new-product programs. Most see serious penalties for an overly cautious approach.

This report is based on information provided by 148 members of The Conference Board's Senior Marketing Executives Panel, whose generous cooperation is

sincerely appreciated. The companies represented include a broad cross section of medium- to large-sized firms in the United States. Ninety-one of them sell primarily to industrial markets, and the other fifty-seven primarily to consumer markets. In some cases, executives in multidivision firms reported only on the experience of a single operating unit in their companies, usually the largest one. (Not represented in the survey: (1) manufacturers reporting no major new products in the preceding five years, a few of which were said to have introduced merely new styles or models of their traditional offerings; and (2) other manufacturers with output produced to order solely in accordance with customers' designs and requirements.)

The report was prepared in the Board's Marketing Management Research unit, under the supervision of Earl L. Bailey, director. This unit is part of the Management Research Division, Harold Stieglitz, Vice President.

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Chapter 1

Reliance on New Products for Company Growth

NEW-PRODUCT DEVELOPMENT is notoriously risky. Least risky, in general, are relatively modest improvements or modifications of existing product lines. These often enjoy a built-in likelihood of customer acceptance.

More risky, as a rule, are major new products that go well beyond being mere line extensions. Whether truly new to the industry, or merely new to the company that propels it against competition, a product of this kind tends to be loaded with a greater chance of failure in the marketplace—and it is exclusively with such *major new products* that the present survey is concerned.

Employing this definition, the 148 companies whose experiences provide the basis of this report find that, on average, 15 percent of their current sales volume is attributable to the sale of major new products first introduced by them during the past five years. This average (as measured by the median) dependence on new products is similar for manufacturers of either industrial or consumer products. The range for individual firms goes all the way from zero to more than 50 percent. As might be expected, firms in stable, commodity-type industries tend to be less

dependent on new products than those in specialty businesses, where opportunities for innovation are higher or product life-cycles shorter.

Looking to the future, two-thirds of the reporting executives expect their companies to have an even greater dependence on new products over the next five years.[1] (This expectation is generally much more than a pipe dream, since the lead time in developing new products is frequently one to two years, or longer.) Most of the remainder look for the degree of sales dependence on new products five years hence to be about the same as it is now (see Table 1). For companies selling to consumer markets, expectations are somewhat less ebullient for future sales volume to come from new products than is the case for those selling to industrial markets.

Average Number of New Products

It comes as no surprise that the number of major new products (i.e., excluding modest line extensions and minor design changes) introduced to the market over the past five years varies enormously from one company to another. Some have launched only one or two, while a few have brought out scores—or even hundreds. For firms selling primarily to industrial markets, the median number of major new products introduced during this five-year period was eight, while that for consumer product firms was six.

[1]Similar confidence for the outcome of future new-product programs was found in earlier research by the Board. See David S. Hopkins and Earl L. Bailey, "New Product Pressures," *The Conference Board Record*, June, 1971.

Table 1: Companies' Expected Dependence on New Products for Future Sales

Expected Dependence on New Products for Sales Volume over Next Five Years	Total, All Reporting Companies	Companies Selling Primarily to		Companies Whose Present Dependence on New Products for Sales Volume Is	
		Industrial Markets	Consumer Markets	Below Average[1]	Above Average[1]
Higher than now	67%	71%	60%	71%	62%
About the same	25	21	31	20	31
Lower than now	8	8	9	9	7
	100%	100%	100%	100%	100%

[1]Present dependence on new products is defined as the percentage of a company's current sales volume that is attributable to the sale of major products first introduced by the company during the past five years.

Chapter 2

"Success" and "Failure"

ALL TOO OFTEN, loose talk about high rates of new-product failure reflects imprecise dividing lines between what may appropriately be classed as "success" or "failure." For purposes of the present study, a major new product was taken to be a success if it met management's original expectations for it in all important respects. Conversely, a major new product was taken to have been a failure if, in some important respect, it failed to have met management's original expectations for it. Although such a product often continued to be sold, the extreme possibility was that its performance proved so disappointing that it was actually withdrawn from the market.

Half of the companies surveyed had achieved success, as defined above, with at least two-thirds of the major new products that they marketed over the past five years. The other half reported such success with fewer than two-thirds of their new products—and there were some for which each and every one of their new offerings had proved disappointing. These median values for new-product success (i.e., two out of three meeting management's expectations in all important

respects) were the same for manufacturers selling either to industrial or consumer markets.[2]

From the patterns of success shown in Table 2, it can be seen that complete success or complete failure is more common among manufacturers catering to consumer markets than among those servicing industrial markets. However, firms falling at either of these extremes include, to an above-average extent, a number that launched only relatively few major new products. A firm that sends to market only one or two major new items over a five-year period is perhaps either exceptionally cautious or exceptionally short in new-product experience. In either case, the low number of products at risk increases the chances of total success or total failure.

Nevertheless, reporting firms with a perfect batting average for new products include a large manufacturer of metal components and equipment with over 100 successful new products; a producer of electrical components with 25; a petroleum products company with nine; a paper products company with six; and two drug manufacturers each having a handful or so of consistently successful new items.

Among the firms that went scoreless for five long years are included a large chemicals producer with 20 new-product failures; a small manufacturer of heating equipment with 11; a producer of sports equipment with six; and two firms making office supplies and two others in packaged goods industries, each with several losers and no winners at all.

[2]A similar poll, conducted in 1971 (see footnote on page 2) found that the equivalent median values for success with major new products at that time were approximately 80 percent for industrial product firms and 60 percent for consumer product firms. Especially in view of sampling differences, however, probably not too much importance should be attached to differences in the success rate between the 1971 and 1979 surveys.

In each of the surveys, most product failures (not having met management's expectations in some important respect) did not result in such disappointing performance as to require actually being withdrawn from the market. In the 1979 survey, the proportion of all major new products marketed by the reporting companies which later proved so disappointing that they had to be removed from the market was about 9 percent for industrial product firms and about 13 percent for consumer product firms.

Table 2: Success Rates for Major New Products in Past Five Years[1]

Percent of Successful New Products	Percent of Companies Selling Primarily to	
	Industrial Markets	Consumer Markets
All succeeded	9%	18%
90 to 99%	7	4
80 to 89%	16	9
70 to 79%	11	11
60 to 69%	16	12
50 to 59%	15	15
40 to 49%	4	2
30 to 39%	9	9
1 to 29%	5	4
None succeeded	8	16
	100%	100%

[1]The success rate reported by each company represents the percentage of all *major* new products introduced to the market by the company during the previous five years which subsequently met management's expectations in all important respects.

How do managements, in general, regard their companies' new-product performances? On the whole, they are reported to be quite well satisfied (see Table 3). More than one-third of the total regard their rate of success with major new products as being highly acceptable, and another half of them as being disappointing, but still acceptable. Only a small minority view their new-product performance as being unacceptably low.

Managements in firms selling to consumer markets seem to be even more pleased with the outcome than are those concerned with industrial markets. And there is a correlation between the degree of management satisfaction and the relative degree of success actually achieved over the past five years. Thus, as many as four out of five managements of companies with success rates well above average (i.e., falling within the top quartile of those surveyed) find this result highly acceptable. In contrast, where success rates were much below average (i.e., falling within the bottom quartile in terms of success), very few managements consider the result highly acceptable. Yet managements are not uniformly discouraged even in these cases. While more than a quarter

Table 3: Acceptability of New-Product Success Rate Achieved

Management Feeling Regarding Company's Relative Rate of Success	Total, All Reporting Companies	Companies Selling Primarily to		Companies Whose Past Success Rate Was[1]			
		Industrial Markets	Consumer Markets	Much Above Average	Somewhat Above Average	Somewhat Below Average	Much Below Average
Highly acceptable	37%	33%	44%	79%	42%	15%	5%
Disappointing, but still acceptable	52	57	44	21	53	73	67
Unacceptably low	11	10	12	—	5	12	28
	100%	100%	100%	100%	100%	100%	100%

[1]The three quartile values, which divide the distribution into four equal parts, were used to categorize companies' success rates during the past five years. "Much above average" thus means higher than the third quartile value; and "average" refers, of course, to the median.

Dissecting the Failure Rate for New Products

The median failure rates for new products found in both the 1971 and 1979 surveys by The Conference Board are sharply lower than averages sometimes quoted and repeated by certain other observers of the new-product scene. The statement has been made from time to time, for example, that typically as many as eight or nine out of every ten new products turn out to be failures.

Differences of definition probably account for most such seeming discrepancies. The Board's surveys cover major new products that firms have actually introduced to the market. In contrast, some other observers have apparently referred to new-product ventures that may have been abandoned at a much earlier stage in their development.

Many managements have had the experience of bringing a new product toward the point of launch, perhaps even to test market, and have then had second thoughts and held it back. Possibly some such ventures might have become winners, yet the likelihood is there were sound reasons for management to fear they would have become losers in the marketplace. And obviously behind such near-starters there are often numerous other projects, or mere proposals, that are picked up by R and D or examined by the company's marketing research unit in a preliminary way and soon dropped from further consideration. In general, the farther back along the development process it is decided to set the cut-off point for definition of a new product, the greater might be the expected proportion of failures reported.

Operating in the reverse direction, however, one could take into account "new products" of all kinds—not only *major* new products covered in the Board's surveys, but also lesser product improvements and line extensions that characteristically have more assurance of success. In that event, the proportion of "winners" to "losers" might be expected to be higher—not lower—than the Board's findings.

of them consider the performance unacceptably low, two-thirds view it as disappointing—but still acceptable.

Acceptable Risk

The prevailing view is that it is realistic to expect an occasional loser mixed in with the winners. Most of the marketers

surveyed consider some element of risk to be inherent—even desirable—in any active program of new-product development.

One executive sums up for many when he declares: "A 100 percent success rate can never be assured in the marketplace, and any company that insists on this will surely see a great number of opportunities pass it by." For additional comments on this point, see box on pages 10-11.

Acknowledging that virtually every new product inevitably carries some risk does not, however, preclude attempts to cut such risk to a minimum. The general view is that management should at least insist on maximum effort and aim for the bull's-eye every time. There is, to be sure, a minority view found in certain industrial firms, where so significant an investment is required to bring any new offering to market that no failure whatever can be countenanced.

Perspectives on Acceptable Risk

"Our experience and the experience of others has taught us that failure is an inevitable part of the learning process. We would be delighted with success well below 100 percent. As a company, we strive to minimize the cost of these failures and maximize our learning from them."

Director of corporate development—a packaged foods company

* * *

"To expect 100 percent success with new products is too conservative to attain a satisfactory growth rate and would result in prohibitive costs of design, testing and market evaluation."

Product planning director—a producer of farm equipment

* * *

"A well-managed company must be willing to risk failure of new-product introductions. Too many possibly successful products will be terminated unless this risk of failure is allowed. Most companies need all the product opportunities they can get these days."

Marketing research director—a large consumer products company

* * *

"Any company that wants to achieve a large percentage of its growth from new products must be willing to accept some risk in new-product failures. The acceptable percentage of failure depends entirely upon the company's finances, personality and desired goals. Any company that approaches new products expecting a 100 percent success rate is not committed to having new products produce a large percentage of its growth. In our business, we feel an aggressive new-product program is essential to success.

"In addition to the development of new products, it is important that the company know what to do when a new product is successful. Many times the actions taken as a result of a successful new product, in terms of further extensions,

development and additional business spin-offs, can be far more important to its life and total profitability than the analysis of why a product failed."

Vice president, marketing—a paper products firm

* * *

"I believe the well-managed company should recognize its own strengths and attempt to limit risk by utilizing its areas of strengths and avoiding risks in areas where it has limited strength and ability.

"This requires separating the new-product activity into several elements. Identification of new-product ideas is one area that might be isolated. The initial product development, including production and packaging, is a second element. Marketing would be a third.

"The well-managed company should expect a 100 percent success rate within each of these ares if it has strengths in each of them. However, when the company is working with new production techniques, or new ingredients and materials with which it has no experience, it must anticipate a greater level of risk than in an area with which it is familiar."

Division vice president—a food products company

* * *

"To target a new-product development program to expect a 100 percent success rate would be counterproductive— extreme conservatism would rule with very few, if any, projects reaching fruition. The rational approach is to set goals, determined by marketing and financial with the approval of corporate management, that would include an 'acceptable percentage' in the range from limited success to total failure—but enhance the probability of the more innovative concepts to be carried successfully to the marketplace.

"One hundred percent is 'Camelot' and we must operate, profit and grow within the real world."

Vice president, marketing—an office supplies firm

Chapter 3

Causes of Failure

"EXPERIENCE," it has been said, "is the name everyone gives to his mistakes." On this basis, quite a number of managements have gained experience in the school of hard knocks, and have indeed learned from their mistakes some precautions that they earnestly intend to apply in their new-product programs henceforward.

Poor Marketing Research

It comes as no surprise that, as in previous Conference Board investigations of the subject, marketers cite insufficient or faulty marketing research as the most frequent cause of new-product failure. And lack of thoroughness in identifying real needs in the marketplace, or in spotting early signs of competitors girding up to take the offensive, are often the findings of a new-product post mortem.

Thus, after a new item has failed to come up to expectations, marketers sometimes confess to "a serious misreading" of customer needs, "too little field testing," or "overly optimistic forecasts of market need and acceptance." All too often, it seems, some managements still fall into the trap described by the marketing vice president of one industrial firm, who says: "Simply stated, we decided what our marketplace wanted in this new product without really asking that market what its priorities were."

Another marketing head reports ruefully on the classical error of launching a product (in this case, a new kind of materials handling equipment) that was "adequate in the minds of our engineers, but not so when put to use by our customers." His comment: "The very important lesson we learned was to determine the requirements of the marketplace through market surveys, and then to interpret that need to our engineers for product development."

In a very different product category—cosmetics—yet another company suffered failures that were tied to inadequately rigorous and disciplined marketing research. A division manager explains that although test marketing is not always feasible for an item such as a new fragrance, consumer research methods have subsequently been evolved that, in his words, "adequately replicate the real world." He adds: "Naturally, this market research does not guarantee success, but it is unquestionably a very helpful tool to limit risk of failure."

A key purpose in conducting marketing research is, of course, to bring objectivity to new-product decisions. Not heeding the research findings of a competent specialist can teach an expensive lesson—as in the case cited by the sales manager of a firm making environmental control equipment. He followed the optimistic report of a program manager, instead of the more pessimistic (and, as it turned out, more accurate and objective) findings of a "noninvolved" marketing researcher.

Several other executives warn against the ever-present possibility that those working to develop a new product may allow the coolness of their professional judgment to become overheated through overly enthusiastic, even emotional, involvement in the venture. According to one marketer, a new product under development sometimes gains a self-sustaining momentum that leads danger signals to be disregarded. The remedy, in his view and that of others reporting, is to insist on checkpoints along the way when the case for continuing or stopping can be dispassionately reviewed.

Technical Problems

Technical problems in design or production are the second most common cause of reported new-product failure. Quite often such problems can be overcome, but only after costly delays. Several executives describe past difficulties of their companies in trying to convert to full-scale production from laboratory or pilot-stage development work. Manufacturing glitches and unsatisfactory product quality sometimes arise, too, when novel materials or components are bought from an outside supplier for incorporation in a new item.

It is notoriously evident that failure to keep up with technological improvements developed by competitors can on occasion halt a newly introduced product in its tracks. Also, "over-engineering" a new item to the point where its cost and price become noncompetitive is yet another booby trap for the unwary. For examples of reports on these and various other technical problems, see the accompanying box on pages 16-17.

Proper Timing

Mistakes of one kind or another in the timing of their introduction to market are the third most common downfall of new products described by executives. The penalties for moving too slowly, or too fast, stem not only from technical problems, but also from flawed planning, organization or control. Timing can be especially critical in a cyclical industry. Such is the case of an agricultural fertilizer company whose marketing vice president stresses "the cyclical gyrations" that buffet sales in an industry like this: "Come in on an up cycle and you're a hero; the reverse is true as well."

Delays in shepherding a new product to market can be disastrous in some instances. For example, the management of a lighting products firm found to its dismay that there had been a shift in style preference during the time lag between the inception of a new-product idea and its attempted sell-in to the market. A similar experience befell a publisher in a

specialized field, where the planning and development cycle can take up to five years. "In the simplest terms," says the firm's executive vice president, "the market changed dramatically the year the product arrived." And management of a domestic appliance manufacturer came to regret the cautious addition of a major new item to its product line as intense competition developed.

Moving too fast in rushing a new product to market can also be risky, as several marketers note in ruing shortcuts taken with the best of intentions:

- When a machine tool company found that a joint development program with a foreign affiliate was behind schedule, management ordered a crash project to modify an older product to try to meet a known market opportunity. However, the capabilities of this hastily modified product proved to be inadequate to the need, and it had to be withdrawn after a short period of market exposure.
- To keep expenses down, a producer of medical equipment skipped the stage of prototype tooling that would have assured a thorough test of market acceptance, and instead went directly from a single handmade sample to production tooling. The outcome of this shortcut—along with a decision that set the product's price at too high a level—was an unsatisfactory sales volume.
- To head off the threat of a competitive product introduction, the management of a packaged foods company decided to shortcut its usual thoroughness in concept and product testing when preparing a new item in a market category where the firm was already established. However, objectives for repeat purchase were not achieved, largely because the flavor of the new item did not conform to consumer expectations.
- An office equipment firm hustled a new product to market to meet a predetermined time schedule. Then came troublesome engineering problems, needs for extensive servicing in the field, and tardy realization that the sales force was not targeted to potential customers for this product, all

Technical Problems with New-Product Ventures

"We have entered the market with two new products. In both cases, they turned out to be less successful than we had hoped, basically because of inadequate pilot-plant development. In other words, our research was not complete, and, therefore, caused considerable delay in modification of the process in order to produce the product quality necessary. In pilot-plant work, we were capable of producing the desired product, but not in full-scale production. We were eventually able to modify our process sufficiently to manufacture the product needed, and our sales and production since that time have been satisfactory."

Vice president, sales—an industrial chemicals company

* * *

"With the encouragement of a major fiber company, we introduced a special yarn designed to replace cotton yarns. Despite assurances that the fiber had been evaluated thoroughly and was ready for commercial exploitation, processing the fiber proved more difficult than anticipated, with resultant delays and problems. Our customers became discouraged and turned to other products, leaving the program insufficient in size to justify retention.

"We failed to check the claims of the producer thoroughly, yielding instead to their pressure to introduce the product to meet a market trend. We should have confined our program to one or two critical customers who would have been capable of assessing the product's virtues and market potential while affording us the opportunity of evaluating the fiber's processing characteristics in greater detail."

Marketing vice president—a textile company

* * *

"One of our divisions designed a [new type of wire]. The specifications were very severe and, in a sense, pushed the technology to its outer limits. As a consequence, our product, although generally reliable in laboratory tests, experienced serious difficulties when produced on a quantity basis. After a year of extensive test work and expenditure of considerable sums of money, we are slowly solving the technical problems.

"The major lesson to be learned from this incident is to make sure that we understand the limits of the materials and designs with which we are dealing, and that we do not attempt to develop products to meet specifications too rigorous for our manufacturing procedures."

Vice president, technology—a diversified manufacturer

* * *

"In the not-too-distant painful past, we marketed a product to meet competition in a new area of endeavor. Our market information, return on investment, pricing and packaging were good. Unfortunately, this information caused our product development and R and D people to shortcut the requirements for quality within the product. To meet cost figures they substituted plastics for the bottle enclosure, which let the material inside evaporate and thicken. Efforts were made to overcome the product and container weaknesses, but the sales force had been burned. I removed the product from the market rather than continue to push an inferior product. The lessons are obvious."

Vice president, marketing—a commercial supplies manufacturer

* * *

"A recent new product developed by our company and introduced at our industry's largest international show has turned out to be far below our expected success.

"The problem developed while our new product was on exhibit. Many people liked what they saw—with the qualifications that just a few more functional capabilities would enhance its salability. Unfortunately, we listened to too many suggestions and proceeded to adapt additional features to the product. Its original $55,000 selling price became $80,000 as a result of these added features. We found the $80,000 product put us in a more unfavorable competitive position than if we had left it in its $55,000 configuration. The lesson learned was not to over-engineer a product once it is developed for a specific market need."

Senior vice president, marketing—a machinery producer

The Rise and Fall of a New Specialty Chemical

"The product was a specialty chemical, the company's first entry into this field. Testing was successful, and outside manufacturing arranged with some difficulty. For several years we sold all we could make, and by the second and third years of full marketing achieved substantial volumes. We realized that this success was to some extent due to the shortage of similar chemicals [in that period]. What we did not fully realize was, firstly, that our product was being sold and used as if identical with the market leader's product, in spite of instructions to the contrary on our labels and advertising; and, secondly, that the third-year sales largely represented precautionary buying in case the shortage continued. Then the market turned down, the market leader's product became freely available, and our product, with its reputation damaged by the results of wrong application, started a sales decline from which it was never to recover.

"We have identified plenty of reasons for these sad events. Not necessarily in order of importance, here are some of them:

"(1) Our own laboratory tests showed measurable superiority over the market leader. These tests were not usually confirmed by the less precisely controlled trials of customers' technical people. However, we remained con-

of which led to disappointing results that took a long time to rectify.

- A furniture manufacturer tried for "overnight success" with a new line—only to discover that it had moved too fast for adequate tooling, preparation of trade samples, and development of point-of-purchase material.

Other Lessons Learned

Among other lessons that a number of marketers say they have learned are these:

- Make sure that senior company executives are kept informed about the progress of each new-product project, but

vinced for some time that our assessment was 'right.'

"(2) The product was intrinsically more expensive to make than its major competitor, and therefore required a premium in the market; however, the premium could not be sustained unless the product was recognized to be superior by the user. (In addition, our costs increased sharply during the introductory period along with those of all other organic chemicals.)

"(3) We started the program with a small sales force and a select group of supposedly highly motivated distributors. In the context of the product shortage it was easy for these distributors to sell the product without bothering to explain how it should be used, and they also failed to observe the subsequent stockpiling of material. Our own sales force, besides being highly optimistic by disposition, was much too small to second-guess the distributors.

"(4) We were followed into the market about two years after our own introduction by a number of similar compounds. These were dismissed in our planning as offering no performance advantage over the market leader. They were, however, respectable compounds, aggressively promoted by large companies, and they forced the market leader to accept lower profit margins, which hurt us as a high-cost producer."

aim to limit their personal involvement to no more than is appropriate or necessary.

- Support a new product with ample selling effort and promotional resources in order to enable it to achieve its goals.

- Be wary of any proposed new product that strays too far from the company's areas of technical or marketing expertise. (One firm engaged in systems selling learned this lesson when it tried to introduce a new commodity-type product, and another, in the hardwares business, was unsuccessful when it tried to market a new line of gift items.)

- Even when all signals for a new product are favorable, bear in mind that the product still may flop if it is handled by

a sales force accustomed to dealing with a different product category or a different type of customer.

- Don't overlook the possibility that competitors may attack a product newly on the market in various ways, such as by launching a rival "me-too" entry, by cutting the price, or by beefing up promotion of their existing entries.
- Keep in mind that educating customers about the use and value of a truly new product can sometimes be a much longer and harder process than anticipated—and especially so when it is the "customer's customer" that must be reached for the education process.
- Take great care in positioning any new product when this factor is vital for success. (Several companies attributed failures to having set the quality or price of new products above—or below—customers' expectations.)
- Remember that even the most promising new item may not succeed unless it is integrated into the complete product line that distributors (or customers) may expect.
- Make a repeat check of expected costs, profit margins and return on investment whenever the original specifications for a new product are significantly modified in the course of its development.

There remains, of course, the possibility of plain bad luck. A few managements, convinced that they played their new-product development programs by the book, report nevertheless being stymied by such unforeseeable (or, at least completely unforeseen) events as suddenly inflated prices for basic components or materials required for a new product, or overnight changes in government regulations affecting the sale or manufacture of proposed items.

Post Mortems

When a new product's performance falls short of expectations, only a minority (about one-third) of the managements surveyed routinely conduct a formal review to identify the reasons for it.

Interestingly, the practice of conducting such formal reviews is most prevalent among manufacturers (especially those catering to consumer markets) that have had above-average success with new products. The others prefer to bury their mistakes without examining the causes in any formal manner or else, in some cases, judge the causes to be too obvious to warrant serious investigation.

Chapter 4

Fostering Winners and Suppressing Losers

THE FUTURE VITALITY of companies' new-product development programs over the next five years seems well assured. As already noted, most reporting executives expect that the number of new products marketed by their companies, as well as the relative contribution of new products to their companies' sales, will be even higher in this period. Furthermore, nearly two out of three executives predict a higher rate of new-product *success* for their companies over the next five years than in the preceding five.

This optimistic view, shared equally by those whose firms sell to industrial or to consumer markets, is strongest where the past success rate, in management's view, was less than acceptable (see Table 4). An expectation that the *future* success rate will be about the same as in the past is reported most often for firms whose managements are said to consider the *past* success rate to have been "highly acceptable."

In support of this general optimism, marketers cite a number of important steps taken in recent years to strengthen their companies' new-product programs. Frequently mentioned, for example, are improved procedures and organizational responsibility for new products. Others

Table 4: Success Rate Expected for Future New Products

Expected Rate of New-Product Successes over Next Five Years, Compared with Previous Five Years	Percent of Companies Reporting			
		Where Management Regards Success Rate over the Past Five Years as		
	Total, All Reporting Companies	Highly Acceptable	Disappointing, But Still Acceptable	Unacceptably Low
Higher	62%	38%	73%	94%
About the same	35	57	24	6
Lower	3	5	3	—
	100%	100%	100%	100%

point to specific improvements that represent the reciprocal of perceived causes of new-product failures described earlier.

Changes in Organization and Procedures

Two common threads are discernible in many company attempts to ensure better direction for new-product development. One is the pinpointing of responsibility for initiating and coordinating new-product ventures, and for keeping programs on schedule. A number of managements have strengthened new-product assignments, or have established full-time positions in this area for the first time. While most changes of this kind tend to promote the role of the marketing function, this is not always the case. In one diversified company, for example, the occupant of the newly created position of corporate vice president for technology is now responsible for beefing up new-product programs throughout the company's divisions.

A second common thread is the formalization of arrangements for ensuring closer cooperation between marketing, R and D, and other functions concerned with new products. Often this has been accomplished by establishing an interdepartmental committee that meets at regular intervals to facilitate and monitor progress. In some companies, however, there is insistence that close working relationships between departments concerned with new products must be continuous—not just a once-a-month commit-

How One Firm Is Refurbishing Its New-Product Development Efforts

In one operating division of a company manufacturing supply items, an interdepartmental team spent 10 months last year studying answers to the question: "How can we improve our methods of developing and bringing to market our new and improved products?"

Results of this teamwork included a new "standard operating procedure," a detailed checklist for guiding product development methods, a standard form for use in appraising each new product proposed, an activities sheet for reporting progress on projects, and some organizational adjustments.

The twin anchors of the revised organization are a screening committee for new-product ideas, and a project evaluation and review team. The screening committee is new, and the review team replaces the former new-product committee. Each has regular monthly meetings.

Screening Committee for New-Product Ideas

The screening committee evaluates each proposed product in terms of its potential to exceed minimum targets for sales volume and profitability, as well as its uniqueness, producibility, and conformity to the capabilities of the division. If an idea seems promising at first blush, it is assigned to a "sponsor." It is the sponsor's duty to coordinate market surveys and other preliminary screening, and to complete a "Product Development Proposal"—a one-page form on which estimates are made of the size of the total market, the new item's probable share of that market, projected sales volume, unit price and gross profit for each of the first three years after introduction, plus the particulars of anticipated developmental costs and return on investment.

tee meeting. Thus, there is sometimes mention of "a new participative management process," or of movement towards a matrix type of organization whereby multidisciplinary skills can be tapped whenever necessary. To illustrate: The research and engineering department at a packaging company has been restructured to separate work

Project Evaluation and Review Team

After a new-product idea has successfully passed the scrutiny of the screening committee, it gains the status of a proposed project. It is then subject to further study by the project evaluation and review team, chaired by the vice president of new product development. The principal tasks of this interdepartmental team are to recommend approval or rejection of each proposed project, to maintain all current projects under review, and to revise project priorities when necessary. Each approved project is assigned to a "project leader," who becomes responsible for selection of a "project team."

Membership of a project team comprises the project leader, the "sponsor" (i.e., the person who first guided the new idea through the screening committee), and representatives from product management, industrial engineering, marketing research, quality assurance, and other functions as required.

A project leader is expected to "ride herd" on the assigned project by maintaining a "critical-path" chart encompassing a detailed checklist of more than 100 steps to be taken during the product development process. The main headings appearing on this checklist are business analysis, design criteria, preliminary design, design review, field trial, final design, documentation, production planning, sales and marketing, and, lastly, production release. Each of these main headings is divided into a number of subheadings, which often are further subdivided. By way of illustration, under the main heading "design review" there are eight subheadings, just one of which—"quality assurance"—

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on strategic new-business developments from the day-to-day work of operational support. Now the strategic program managers in R and E are linked, matrix fashion, to marketing managers seeking to develop new products for worldwide sale.

Several kinds of organizational change are illustrated in

New-Product Development Efforts
(continued from p. 25)

covers the following six points: materials evaluation, testing costs, test fixtures, standard test methods, sterilization qualifications considerations, and regulatory considerations.

Each project leader reports progress once a month to the project evaluation and review team by means of an "activities sheet" which notes significant milestones, individuals responsible for key activities, and the scheduled and actual start and completion dates for each step in the project.

Benefits Expected

Several major benefits reportedly are expected from this refocusing of organization and procedures for new-product development after the current "shakedown" phase has been completed:

- **By ensuring that a greater amount of marketing research and careful planning is done up front, before any significant engineering time has been devoted to a new product, the proportion of successful projects having a superior financial payoff is expected to rise.**
- **Greater use of project planning and project teams should raise the odds of setting and achieving completion dates.**
- **Improved monitoring and control of new-product projects should help the division to meet its sales and profit objectives for new products.**

the case of a division of a supplies manufacturer, whose situation is described in the box on pages 24-26. Many other managements, of course, have not found it necessary to alter organizational arrangements that were put in place long ago and continue to work well.

In numerous cases, stricter and more formalized procedures now pace the progress of a new-product project from the emergence of the initial idea, through technical and marketing development, to the ultimate decision on whether or not to take the product to market. Executives also report

greater use of checklist requirements that must be satisfied, and tougher rules on the scrutiny of any new product's progress and qualifications to pass a series of "challenge points."

One marketer speaks for many in declaring this to be an ongoing development in his company: "New-product programs are continuously being strengthened through addition of greater analyses relative to market size, market share, pricing, volume, profitability, risk, return on investment, product life cycle, competition, import-export possibilities, and existing and required facilities."

Indeed, about four out of five companies surveyed are reportedly more stringent in the selection criteria and screening hurdles set for their new-product projects than was the case five years ago. For virtually all the remainder, the situation is said to be about the same as it used to be. In a few instances, corporate managements now require approval at that level before division-level managements can make any large commitment to a new-product venture, or make any final decision to go to market with a major addition to an existing product line.

Marketing Research and Analysis

Evidently many marketers have taken to heart the lesson that inadequate marketing research is a leading contributor to new-product losses. Frequent mentions are made of decisions to upgrade marketing research capabilities in various ways, and of managements' resolve to require more careful market testing before investing in technical research and development for a proposed new product—and certainly before it is seriously offered for sale in the marketplace. (See box on pages 30-31.)

Several executives in the industrial field make the point that, for their particular companies at least, the testing of a new product is not necessarily a matter of conducting market surveys of a traditional kind. The practice of a large manufacturer of machine tools, for example, is to work

closely with prospective customers throughout the design, assembly and field-testing phases for new machines. The company's sales manager says that such careful testing under "real-world conditions" is valuable for removing bugs that might not have been uncovered by any amount of testing in the laboratory.

Sales Forecasting

Sharpened methods for sales forecasting are also used by companies to raise their odds for new-product success. For two out of three polled, the accuracy of the first-year sales projection for a new product is greater now than it would have been five years ago. Accuracy of new-product sales forecasts for most of the remaining firms is about the same as it used to be. Fewer than 10 percent report reduced accuracy of such forecasts—and those generally lay the blame on unsettled conditions in the markets they serve.

This widespread improvement in companies' ability to predict the sale of new products is common to those selling to either industrial or consumer markets. The reasons given are also similar, with the leading one being better research and analysis, conducted in a more professional manner. For example, the sales vice president of a packaged goods company attributes better new-product forecasts to more sophisticated analyses of controlled store tests and test marketing, with substantially increased research on the effectiveness of advertising and on consumer trial and repurchase rates. Reducing forecast error can mean, on occasion, that management will decide not to go ahead with a prospective loser. There are reports, too, of managements having accumulated more experience in making and appraising sales predictions for new products, and of showing more willingness to learn from past errors in judgment or measurement.

A second explanation in many cases for a lower margin of error in new-product forecasts—which is closely related to the first—is the injection of more realism and objectivity into

the process of critically evaluating the prospects for securing sales. Or, as one executive puts it: "Fewer wishes, more reality." This factor on its own may act to improve a company's new-product score card: When the sales forecast for a new item is less inflated with unrealistic optimism, management's lower expectations for it may occasionally convert what would otherwise have been judged a disappointment into an acceptable result.

Not all managements are satisfied with the present expected accuracy of their new-product forecasts, even when this is said to have measurably improved. One marketer, for instance, after citing reduced error stemming from a better structuring of test markets, more rigorous data analyses, and accumulated experience with the forecasting art, says: "Even so, first-year projections for new products are—and likely will remain—among the most difficult and least accurate we make."

Major Breakthroughs Most Desired

On the one hand, most of the marketers surveyed are close to brimming with confidence about the prospects for their companies' new-product programs, believing their optimism to be well-grounded on the basis of measures already being taken to assure that result. On the other hand, many say they recognize that in the years ahead not everything in the new-products garden will be coming up roses, since potential problems can never be totally eradicated.

The executives gave thought to the kinds of major breakthroughs in their companies' new-product programs that would most significantly increase the future likelihood of market success. Those whose achievement, in their opinion, would be most valuable in fostering new-product winners and suppressing losers are listed in Table 5 (for industrial product marketers) and Table 6 (for consumer product marketers).

Heading the "wish list" most often for marketers of industrial products: A breakthrough in "identifying specific

Strengthening Marketing Research

"We have made a rather substantial effort to improve our techniques in evaluating the marketplace and competition, as well as in measuring consumer-perceived needs and preferences.

"We have staffed a research group employing the focus group interview process, as well as panel groups in fairly large numbers. There is still much to learn in this area but the rate of success is improving. At least we're doing less shooting from the hip, and placing more and more emphasis on fairly sophisticated research."

Marketing vice president—a housewares manufacturer

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"The steps we have taken to strengthen new-product programs have mostly related to procedures for initiating projects for new products, early brand planning, and extensive testing. Despite these steps, new-product risks remain large, and getting good market research data and interpreting them correctly is a major hurdle."

Division president—a specialty chemical producer

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"We are doing more in-depth marketing research from concept to ultimate commercialization. We test the concept. We sample with home placement. We test in a mini-market. We test in a regional market. We survey national results."

Business planning director—a food products division

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"Over the past three or four years, our company has done much more intensive market research on customers' use of existing products and perceived need for improvement. This

market requirements." This is the first choice of close to half of those surveyed, with a lesser number according it second, third, fourth or fifth-place ranking. Next most common: A wish for breakthroughs in "technical innovation and development," and also in the "R and D-marketing interface." A goodly number of second and later choices go to

program includes increased field observation of the applications for which the product is intended.

"The field-study information is converted into product design criteria, which define in considerably greater detail the functions the machine must perform and the conditions under which it will operate. After their introduction, new products are monitored for productivity and mechanical performance to permit more rapid response to design errors and omissions."

Group vice president—a machinery and equipment manufacturer

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"In the last few years, we have programmed data processing to make available a better analysis of our product sales, particularly those in the new-product area. In addition, we have developed a better technique for getting market research data and input from the field sales staff and distributor organization to determine style preference."

President—a lighting products firm

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"Steps taken to ensure greater success of new product introductions include:

- More careful evaluation with respect to marketability at the idea-inception stage.
- Closer supervision of test marketing by an individual with specific responsibility for this function.
- More careful attention to sales curves and repeat orders during test marketing and prior to standardization."

Market development manager—a producer of cleaning agents

"market positioning and segmentation strategy" and to "appraising the competitive situation," with a few giving first choice to the former and none giving first choice to the latter.

As for marketers of consumer products, the most desired breakthrough would be in "technical innovation and

Table 5: Major Breakthroughs Most Desired by Companies Selling to Industrial Markets

Area of Desired Breakthrough	Percent of Respondents Ranking As			
	First Choice	Second Choice	Third, Fourth or Fifth Choices	Any of Five Choices
Identifying specific market requirements	49%	12%	8%	17%
Technical innovation and development	14	14	10	12
R and D/marketing interface	9	15	6	9
Overall coordination of effort	6	3	7	6
Screening product proposals	6	2	4	4
Market positioning/segmentation strategy	5	12	9	9
Generating product ideas	5	11	5	6
Testing product use and feasibility	1	3	9	6
Quality assurance	1	3	4	4
Pricing strategy	1	—	6	4
Sales/trade support	1	—	3	2
Advertising/promotion support	—	10	2	2
Appraising competitive situation	—	5	11	9
Testing product concepts	—	5	5	4
Test marketing	—	3	6	4
Risk analysis/ROI projections	2	—	4	3
Other			—	1

Note: Respondents in 88 manufacturing companies selling primarily to industrial markets indicated in rank order the five desired breakthroughs that, in their opinion, would most significantly increase the likelihood of market successes in their companies' new-product programs. Columns may not add to 100 percent because of rounding.

Table 6: Major Breakthroughs Most Desired by Companies Selling to Consumer Markets

Area of Desired Breakthrough	Percent of Respondents Ranking As			
	First Choice	Second Choice	Third, Fourth or Fifth Choices	Any of Five Choices
Technical innovation and development	26%	8%	6%	11%
Identifying specific market requirements	22	15	7	12
Generating product ideas	13	8	5	7
Market positioning/segmentation strategy	9	17	11	12
Overall coordination of effort	7	—	6	5
R and D/marketing interface	4	15	6	7
Testing product concepts	4	9	7	7
Appraising competitive situation	4	8	9	8
Testing product use and feasibility	2	8	5	5
Screening product proposals	2	6	3	3
Test marketing	2	4	11	8
Risk analysis/ROI projections	2	—	4	3
Advertising/promotion support	—	2	5	4
Pricing strategy	—	—	8	5
Quality assurance	—	—	4	2
Sales/trade support	—	—	2	1
Other	2	2	1	1

Note: Respondents in 54 manufacturing companies selling primarily to consumer markets indicated in rank order the five desired breakthroughs that, in their opinion, would most significantly increase the likelihood of market successes in their companies' new-product programs. Columns may not add to 100 percent because of rounding.

development"—the first choice of more than one fourth of those reporting. Next comes "identifying specific market requirements" (although the proportion giving it priority is not nearly so high as for marketers of industrial products), followed by "generating product ideas" and "market positioning and segmentation strategy."

Generally, hoped-for advances do not seem to be influenced especially by a company's past rate of new-product success. However, three possibilities—"generating product ideas," "R and D-marketing interface," and "appraising the competitive situation"—are above-average preferences for marketers in firms with above-average success rates. These, then, are areas where still further improvements are deemed highly desirable, even though past performance has been reassuring. Conversely, these same areas are cited to a below-average extent by marketers in firms with relatively low success rates.

To be sure, it would be incorrect to suppose that managements are altogether satisfied with their companies' handling of areas mentioned least often as hoped-for breakthroughs. (Examples are "advertising and promotion support," "sales and trade support," "test marketing," and "risk analysis/ROI projections.") It is not unreasonable to assume, however, that these include steps and procedures that numerous managements have worked the hardest—or perhaps found the easiest—to improve.

In any case, they see the greatest potential payoff from here on coming from innovation—both in technical advancements and ideas for products—at the very earliest stage of the development process. For the most valuable competitive edge, they dream of the product that is both technically superior and precisely matched to customer need.

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